

DRAFT Chapter 5 – Government Services (GOVT)

COMMITMENT: Bay Area city and county governments, as well as community services agencies, provide essential services during and immediately following disasters, as well as critical functions during recovery, that need to be resistant to disasters.

Continuing function of government is critical after a disaster.

After a disaster, a city, county, or special district may find its overworked staff dealing with the recovery of its own facilities and functionality, at the same time it is trying to help the community to recover as a whole.

The ability of a community to recover after a disaster will depend, in part, on the continuing functioning of the government. Thus, mitigation strategies need to focus on more than administration, police, and fire departments. They also need to cover planning and permitting as well as social services necessary for community recovery. Using this definition, Bay Area local government own almost 4,000 critical facilities, as described in Appendix C.

The greatest hazard to these critical facilities is earthquake shaking, with earthquake hazards is the greatest hazard, with 96% of them exposed to high shaking levels (peak accelerations of greater than 40% g with a 10% chance of being exceeded in the next 50 years), and 73% being exposed to extremely high shaking levels (60% g). Thus, most of the hazard mitigation strategies that follow deal with this hazard. In addition, 31% of government facilities are located in the highest two categories of liquefaction susceptibility.

Exposure of critical government facilities to the threat of wildland-urban-interface fires is much less. While 44% of these facilities are located in these hazard areas, only 4% of these hazard areas burned in the past 50 years. While global warming may result in more fires in the next 50 years, the exposure is still less than that of earthquake shaking. Only 0.2% of the facilities are exposed to extreme wildfire threat; 23% of these areas have burned in the past 50 years.

The exposure to storm-related hazards is less. Only 9% of these critical facilities are located in the 100-year flood plain, and only 3% are located in areas of significant past landslides.

Bay Area governments have been proactive.

The first step in ensuring quick recovery from a disaster is retrofitting critical government buildings, such as city halls, to ensure that they can withstand earthquake-generated ground shaking.

Many cities in the Bay Area have been proactive about retrofitting their own facilities, particularly since the 1989 Loma Prieta earthquake. The City of Hayward sits just 700 from the Hayward fault. In 1998, Hayward completed a project to replace the old City Hall building with a new base-isolated building designed to withstand a magnitude 7.5 earthquake. Both Oakland's and San Francisco's city halls were badly damaged in the 1989 Loma Prieta earthquake. Repairs to those structures also included base-isolation to withstand future earthquakes and preserve the historic integrity of the buildings. Many other governments have taken similar actions to ensure that their city halls and other vital government buildings will be able to withstand the next major earthquake the Bay Area will face.

Ensuring that departments have a plan for resumption of services and coordinating with outside agencies and private organizations will also ensure that governments can quickly recover from any natural disaster.



Damage to San Francisco City Hall in 1906

Focus on Critical Facilities Owned by Government

Governments and special districts own buildings that will be critical following a disaster. Office buildings often house important records. Employees will need a place to continue doing their job to help with government recover from disaster. In addition, governments provide many essential services that should continue functioning after a

disaster. The following section deals with ways to protect buildings owned by governments and special districts. These critical facilities include city halls, as well as police and fire stations. But they also are community centers and social services facilities essential to community recovery.

Actions Related to Reducing Damage to Critical Facilities Owned by Government

Facilities owned by cities, counties and special districts might be damaged in a disaster. When this occurs, the normal response and recovery actions of the city, county or special district are hampered. Damage may occur to the structure of buildings, equipment, building contents, and financial records. In addition, vulnerable buildings may pose a danger to the safety of the public as well as the employees who work in them. Government structures that may be of particular importance after disasters include city halls, fire stations, operations and communications headquarters, and community service centers. Government can increase its resiliency to natural disasters using the following strategies.



Oakland City Hall retrofitted after Loma Prieta earthquake

Strategy	Regional Priority	Responsible Agency
1–(Strategy GOVT a-1): Assess the vulnerability of critical facilities (such as city halls, fire stations, operations and communications headquarters, community service centers, seaports, and airports) to damage in natural disasters and make recommendations for appropriate mitigation.	Existing program, underfunded	Cities, counties, special districts
2–(a-2): Retrofit or replace critical facilities that are shown to be vulnerable to damage in natural disasters.	Existing program, underfunded	Cities, counties, special districts
3–(a-9): As a secondary focus, assess the vulnerability of non-critical facilities to damage in natural disasters based on occupancy and structural type, make recommendations on priorities for structural improvements or occupancy reductions, and identify potential funding mechanisms.	Moderate priority	Cities, counties, special districts
4–(a-12): Prior to acquisition of property to be used as a critical facility, conduct a study to ensure the absence of significant structural hazards and hazards associated with the building site.	Existing program	Cities, counties, special districts

Actions Related to Communicating Vulnerability of Government Buildings –

One of the issues that occurs as local governments evaluate the vulnerability of their own facilities to damage in disasters is what to do with that information. For a number of reasons, including making the best public policy decision, it is important that local elected officials and the public are informed of the findings of such analyses so that the decision on what to do about any vulnerabilities is made in using as much relevant information as possible. In addition, because employees working in such buildings should make plans for operating post-disaster; these workers need to understand those vulnerabilities.

<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
1–(a-3): Clarify to workers in critical facilities and emergency personnel, as well as to elected officials and the public, the extent to which the facilities are expected to perform only at a life safety level (allowing for the safe evacuation of personnel) or are expected to remain functional following an earthquake.	Existing program	Cities, counties, special districts

Actions Related to Nonstructural Mitigation of Government Buildings

Even if a building is not structurally damaged, nonstructural buildings contents, particularly file cabinets, bookshelves, computers, servers, and other key equipment, can fall and shift in an earthquake harming occupants rendering the building non-functional. These non-structural assets are typically not expensive to secure, and yet non-functional government buildings will significantly slow the pace of recovery following a disaster. The following strategy will help governments mitigate against these losses.



<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
1–(a-4): Conduct comprehensive programs to identify and mitigate problems with facility contents, architectural components, and equipment that will prevent critical buildings from being functional after major natural disasters. Such contents and equipment includes computers and servers, phones, files, and other tools used by staff to conduct daily business.	Existing program, underfunded	Cities, counties, special districts

Actions Related to Ensuring Government and Non-Government Buildings are BOTH Compliant with Applicable Regulations

Governments can act as an example of good practices for the rest of the community. Ensuring that private businesses and homes are also prepared for disasters will reduce strain on government services after a disaster, speed the economic recovery of the community and save lives. Conversely, government should ensure that they are as prepared as the private community. The following strategies will help government accomplish these complementary goals.

<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
1–(a-10): Ensure that new government-owned facilities comply with and are subject to the same or more stringent regulations as imposed on privately-owned development.	Existing program	Cities and counties
2–(a-13): Ensure that any regulations imposed on private-owned businesses related to repair and reconstruction (see "Economy Section") are enforced and imposed on local government's own buildings and structures.	Existing program	Cities and counties
3–(a-11): Comply with all applicable building and fire codes, as well as other regulations (such as state requirements for fault, landslide, and liquefaction investigations in particular mapped areas) when constructing or significantly remodeling government-owned facilities.	Existing program	Cities, counties, special districts

Actions Related to Improving Security

Some measures undertaken by governments to improve security of their buildings and critical infrastructure can serve the secondary function of helping to mitigate against natural hazards. The following strategies improve security while mitigating hazards.

<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
1–(a-5): Encourage joint meetings of security and operations personnel at critical facilities to develop innovative ways for these personnel to work together to increase safety and security.	Existing program	Cities, counties, and special districts
2–(a-6): When installing micro and/or surveillance cameras around critical public assets tied to web-based software, develop a surveillance protocol to monitor these cameras, and investigate the possibility of using the cameras for the secondary purpose of post-disaster damage assessment.	Moderate	Cities, counties, and special districts
3–(a-7): Identify and undertake cost-effective retrofit measures related to security on critical facilities (such as moving and redesigning air intake vents and installing blast-resistant features) when these buildings undergo major renovations related to other natural hazards.	Moderate	Cities, counties, and special districts

Focus on Efforts to Identify and Mitigate Hazards

Many organizations within the State and Federal governments, as well as research institutions and professional organizations study natural hazards and disaster mitigation techniques. Local governments can benefit from participating in and encouraging these efforts. Continued research on

the hazards our region faces will improve our ability to plan and prepare for them. In addition, many hazards affect more than one local government or jurisdiction simultaneously. To the extent that mitigation strategies can be coordinated among various agencies, the Bay Area will be better prepared for disasters.

Actions Related to Coordination Among Local Governments

The following strategies are available to local governments to encourage information sharing and coordinated planning among various local agencies.

<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
1–(d-1): Promote information sharing among overlapping and neighboring local governments, including cities, counties, and special districts, as well as utilities.	Existing program	Cities, counties, and special districts
2–(d-2): Recognize that emergency services is more than the coordination of police and fire response; it also includes planning activities with providers of water, food, energy, transportation, financial, information, and public health services.	Existing program	Cities, counties, and special districts
3–(d-3): Recognize that a multi-agency approach is needed to mitigate flooding by having flood control districts, cities, counties, and utilities meet at least annually to jointly discuss their capital improvement programs for most effectively reducing the threat of flooding. Work toward making this process more formal to insure that flooding is considered at existing joint-agency meetings.	Very high	Cities, counties, and special districts
4–(d-6): Participate in multi-agency efforts to mitigate fire threat, such as the Hills Emergency Forum (in the East Bay), various <i>FireSafe</i> Council programs, and city-utility task forces. Such participation increases a jurisdiction's competitiveness in obtaining grants.	Existing program, underfunded	Cities, counties, and special districts
5–(d-7): Work with major employers and agencies that handle hazardous materials to coordinate mitigation efforts for the possible release of these materials due to a natural disaster such as an earthquake, flood, fire, or landslide.	Existing program	Cities, counties, and special districts

Actions Related to Coordination with Federal Government –

The following strategies are available to local governments to participate in hazard mitigation programs led by the federal government.

<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
1–(d-4): As new flood-control projects are completed, request that FEMA revise its flood-insurance rate maps and digital Geographic Information System (GIS) data to reflect flood risks as accurately as possible.	Existing program	Cities, counties, and special districts
2–(d-5): Participate in FEMA's National Flood Insurance Program.	Existing program	Cities, counties

Actions Related to Participation in Hazard Research and Education –

The following strategies are available to local governments to encourage research by others on hazards that affect their region as well as to encourage their own employees to learn about the hazards their jurisdiction faces.

<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
1–(d-8): Encourage staff to participate in efforts by professional organizations to mitigate earthquake and landslide disaster losses, such as the efforts of the Northern California Chapter of the Earthquake Engineering Research Institute, the East Bay-Peninsula Chapter of the International Code Council, the Structural Engineers Association of Northern California, and the American Society of Grading Officials.	Existing program	Cities, counties, and special districts
2–(d-9): Conduct and/or promote attendance at local or regional hazard conferences and workshops for elected officials and staff to educate them on the critical need for programs in mitigating earthquake, wildfire, flood, and landslide hazards.	Existing program, underfunded	Cities, counties, and special districts
3–(d-10): Cooperate with researchers working on government-funded projects to refine information on hazards, for example, by expediting the permit and approval process for installation of seismic arrays, gravity survey instruments, borehole drilling, fault trenching, landslide mapping, flood modeling, and/or damage data collection.	Existing program	Cities, counties, and special districts

Focus on Government Emergency Response Capability

Governments provide emergency services such as fire and police that will be essential immediately following a disaster. The ability of these departments to respond will depend on having the right equipment and communications. In addition, a particular disaster will affect many jurisdictions at once and may overwhelm the capacity of any one emergency response department. For this reason,

the ability to share resources and communicate with other departments is essential. In addition, it is essential that city employees are able to return to work quickly after a disaster, which means that their families can be sheltered so they don't leave the region to stay with family and friends. The following section focuses on the ability of governments to respond to disasters.

Actions Related to Employee Preparedness

The primary function of local government immediately after a disaster will be emergency response. Government employees are a major asset of any local government and their ability to report to work after a disaster will greatly affect the ability of a local government to respond to a disaster. The following strategies will help governments protect their employees.

<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
1–(c-1): Develop a plan for short-term and intermediate-term sheltering of your employees.	Existing program	Cities, counties, and special districts
2–(c-2): Encourage your employees to have a family disaster plan.	Existing program	Cities, counties, and special districts
3–(c-3): Offer CERT/NERT-type training to your employees.	Existing program, underfunded	Cities, counties, and special districts

Actions Related to Monitoring and Early Warning of Disasters

Some disasters can be mitigated by monitoring the warning signs of these disasters. For example, weather forecasts can help governments anticipate flooding events and prepare sandbags or other emergency shelters for residents. Similarly, during times of hot, dry weather when there has been little rain, governments can place restrictions on activities that are likely to cause wildfires. These efforts can prevent incidents from turning into disasters and allow governments time to warn or evacuate residents in dangerous areas. Developing unified messages and protocols among neighboring local jurisdictions will ensure that residents are not confused by conflicting information. While some disasters, such as hazmat releases cannot necessarily be predicted ahead of time, early detection and warning can help to quickly control the release and protect residents. The following strategies can be employed by local governments to monitor and prevent disasters.



<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
1–(c-17): Monitor weather during times of high fire risk using, for example, weather stations tied into police and fire dispatch centers.	Existing program	Cities, counties, and special districts
2–(c-18): Establish regional protocols on how to respond to the NOAA Monterey weather forecasts, such as the identifying types of closures, limits on work that could cause ignitions, and pre-positioning of suppression forces. A multi-agency coordination of response also helps provide unified messages to the public about how they should respond to these periods of increased fire danger. Response should also be modified based on knowledge of local micro-climates. Local agencies with less risk then may be available for mutual aid.	Existing program	Cities, counties, and special districts
3–(c-19): Increase local patrolling during periods of high fire weather.	Existing program, underfunded	Cities, counties, and special districts
4–(c-20): Create and maintain an automated system of rain and flood gauges that is web enabled and publicly-accessible. Work toward creating a coordinated regional system.	Existing program, underfunded	Cities, counties, and special districts
5–(c-21): Place remote sensors in strategic locations for early warning of hazmat releases or use of weapons of mass destruction, understanding that the appropriate early warning strategy depends on the type of problem.	Existing program, underfunded	Cities, counties, and special districts

Actions Related to Emergency Evacuation Planning

Quickly and effectively informing residents of imminent disasters is essential in protecting residents. Early warning systems, such as reverse 911, that can reach large quantities of people quickly are essential in areas prone to hazmat releases, fires and floods and dam releases. Continued maintenance of these systems and familiarizing residents in their use through practice drills will help ensure that these systems work effectively in the event of a real disaster. The following strategies will assist local governments in preparing and maintaining early warning systems.

<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
1–(c-14): Install alert and warning systems for rapid evacuation or shelter-in-place. Such systems include outdoor sirens and/or reverse-911 calling systems.	Existing program, underfunded	Cities, counties, and special districts
2–(c-15): Conduct periodic tests of the alerting and warning system.	Existing program, underfunded	Cities, counties, and special districts
3–(c-22): Review and update, as necessary, procedures pursuant to the <i>State Dam Safety Act</i> for the emergency evacuation of areas located below major water-storage facilities.	Existing program	Cities, counties, and special districts
4–(c-23): Improve coordination among cities, counties, and dam owners so that cities and counties can better plan for evacuation of areas that could be inundated if a dam failed, impacting their jurisdiction.	Existing program	Cities, counties, and special districts
5–(c-24): Develop procedures for the emergency evacuation of areas identified on tsunami evacuation maps as these maps become available.	Existing program	Cities, counties, and special districts

Actions Related to First Responders –

First responders, including fire, police and other emergency personnel, will be at the front lines of any major disaster. Ensuring they have adequate tools and equipment will greatly increase their ability to respond to a disaster.



<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
1–(c-6): Ensure that fire, police, and other emergency personnel have adequate radios, breathing apparatuses, protective gear, and other equipment to respond to a major disaster.	Existing program, underfunded	Cities, counties, and special districts

<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
2–(c-8): Harden emergency response communications, including, for example, building redundant capacity into public safety alerting and/or answering points, replacing or hardening microwave and simulcast systems, adding digital encryption for programmable radios, and ensuring a plug-and-play capability for amateur radio.	Existing program, underfunded	Cities, counties, and special districts
3–(c-9): Purchase command vehicles for use as mobile command/EOC vehicles if current vehicles are unsuitable or inadequate.	Existing program, underfunded	Cities, counties, and special districts
4–(c-10): Maintain the local government’s emergency operations center in a fully functional state of readiness.	Existing program, underfunded	Cities, counties, and special districts
5–(c-16): Regulate and enforce the location and design of street-address numbers on buildings and minimize the naming of short streets (that are actually driveways) to single homes.	Existing program	Cities, counties

Actions Related to Coordination and Communications –

The Bay Area typically has several special districts operating within one city of county. Local governments are skilled at including various special districts and major employers in emergency planning efforts. Additional funding could help these local governments expand the reach of their efforts and ensure interoperability of equipment and communications between jurisdictions. The following strategies support efforts being undertaken by local governments to coordinate with emergency response planning efforts with other jurisdictions.

<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
1–(c-7): Participate in developing and maintaining a system of interoperable communications for first responders from cities, counties, special districts, state, and federal agencies.	Existing program, underfunded	Cities, counties, and fire districts
2–(c-11): Expand or participate in expanding traditional disaster exercises involving city and county emergency personnel to include airport and port personnel, transit and infrastructure providers, hospitals, schools, park districts, and major employers.	Existing program, underfunded	Cities, counties, and special districts
3–(c-13): Continue to participate not only in general mutual-aid agreements, but also in agreements with adjoining jurisdictions for cooperative response to fires, floods, earthquakes, and other disasters.	Existing program	Cities and counties
4–(c-25): Support and encourage planning and identification of facilities for the coordination of distribution of water, food, blankets, and other supplies, coordinating this effort with the American Red Cross.	Existing program, underfunded	Cities, counties, and special districts

Actions Related to Emergency Response Plan Maintenance –

As the needs and demands of the community change over time due to increased population or ageing infrastructure, emergency response plans should adapt to these changes. The following strategies focus on ways that governments can keep their emergency response plan up to date.

<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
1–(c-4): Periodically assess the need for new or relocated fire or police stations and other emergency facilities.	Existing program	Cities, counties, and fire districts
2–(c-5): Periodically assess the need for changes in staffing levels, as well as for additional or updated supplies, equipment, technologies, and in-service training classes.	Existing program	Cities, counties, and special districts
3–(c-12): Maintain and update as necessary the local government's Standardized Emergency Management System (SEMS) Plan and the National Incident Management System (NIMS) Plan, and submit an appropriate NIMSCAST report.	Existing program	Cities and counties

Focus on Maintaining and Enhancing Local Government's Disaster Recovery Planning

After a disaster, many government buildings may no longer be safe for occupation. Plans should be made for the emergency relocation of local government facilities critical in emergency response, as well as any government facilities with known structural deficiencies or in hazardous areas. Such plans should include ways to work with local telephone companies to set up phone systems that either preserve pre-disaster phone numbers, or

include call forwarding provisions. In addition, these plans should include public outreach and education on the new locations of these facilities. The relocation plan should include access to back-ups of key records and other documents from alternate locations. Finally, local governments should have plans and back-up procedures to enable them to pay employees, social service recipients, and vendors if normal finance department operations are disrupted.

Actions Related to Disaster Recovery

The following strategies are available to local governments to ensure that they are able to recover more quickly from disasters.

<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
1–(b-1): Establish a framework and process for pre-event planning for post-event recovery that specifies roles, priorities, and responsibilities of various departments within the local government organization, and that outlines a structure and process for policy-making involving elected officials and appointed advisory committees.	Existing program	Cities, counties, and special districts

<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
2–(b-2): Prepare a basic Recovery Plan that outlines the major issues and tasks that are likely to be the key elements of community recovery, as well as integrate this planning into response planning (such as with continuity of operations plans).	Existing program, underfunded	Cities, counties, and special districts
3–(b-3): Establish a goal for the resumption of local government services that may vary from function to function.	Existing program	Cities, counties, and special districts
4–(b-4): Develop a continuity of operations plan that includes back-up storage of vital records, such as plans and back-up procedures to pay employees and vendors if normal finance department operations are disrupted, as well as other essential electronic files.	Existing program, underfunded	Cities, counties, and special districts
5–(b-5): Plan for the emergency relocation of government-owned facilities critical to recovery, as well as any facilities with known structural deficiencies or in hazardous areas.	Existing program, underfunded	Cities, counties, and special districts

Taking a Regional Leadership Role

ABAG is the regional planning agency for the Bay Area, representing all 101 cities and 9 counties in the region. Through its earthquake and hazards programs, natural disasters that affect the region as a whole are studied from a regional context and regional solutions to mitigation. ABAG also models predicted losses develops risk assessments.

In this role, ABAG has taken the lead in coordinating the development of the local hazard mitigation plan with approximately 100 cities, counties and special districts in the region. Developing a comprehensive plan in this matter ensures that regional hazards are dealt with in a unified manner throughout the region and that local governments can coordinate their activities with neighboring jurisdictions.

Actions Related to Taking a Lead in Loss and Risk Assessment Activities–

The following mitigation strategies will ensure that ABAG will continue to take a regional leadership role in understanding, characterizing and planning for natural disasters.

<i>Strategy</i>	<i>Regional Priority</i>	<i>Responsible Agency</i>
1–(e-1): Work with the cities, counties, and special districts in the Bay Area to encourage them to adopt a Local Hazard Mitigation Plan and to assist them in integrating it into their overall planning process.	Existing program, underfunded	ABAG only
2–(e-2): Improve the risk assessment and loss estimation work in the <i>Taming Natural Disasters</i> report and multi-jurisdictional plan related to natural disasters.	Existing program, underfunded	ABAG only

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